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Koichi Takeuchi

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EXAMINER

SHELEHEDA, JAMES R

ART UNIT

PAPER NUMBER

2614

4

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/633,778	<b>Applicant(s)</b> TAKEUCHI, KOICHI	
	<b>Examiner</b> James Sheleheda	<b>Art Unit</b> 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Objections*

1. Claim 18 is objected to because of the following informalities:

In claim 18, line 5, "said program\_number" should be changed to --said PID value--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4, 6 and 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Blatter et al. (Blatter) (6,016,348).

As to claim 1, Blatter discloses a digital broadcast receiving system (Fig. 1) comprising:

a **receive and demodulation section** (10, 15, 20 and 30 of Fig. 1) by which a digital broadcast signal received from the exterior is demodulated (column 3, lines 52-61) and outputted as a packet stream (column 3, lines 62-65 and column 4, lines 14-17);

a **packet filter** (PID selection unit, 47) that filters a predetermined packet in a plurality of packets composing said packet stream (column 9, lines 11-14);

a **record and reproduction unit** (storage device, 90 and storage medium, 105) by which said packet stream passing through said packet filter is recorded (column 3, lines 38-44 and column 11, lines 40-43 and 64-67), and said recorded packet stream is reproduced and outputted (column 12, lines 61-65);

an **information table generator** (controller, 115) that generates, with respect to a first specific information table (CAT table) in various information tables contained in said packet stream (received PSI tables; column 8, lines 18-23), a new first specific information table (CAT table with the broadcast encryption code removed; column 8, lines 35-37 and column 9, lines 43-46) containing information only on a program to be recorded in said record and reproduction unit (column 8, lines 8-11); and

an **information table substitution unit** (mux, 110) by which said new first specific information table (CAT table within the new CPSI) is substituted for an information table corresponding to said first specific information table contained in said packet stream transmitted (wherein the CPSI tables are substituted for the broadcast PSI tables; column 10, lines 58-65), said information table substitution unit being disposed between said receive and demodulation section and said record and reproduction unit (wherein received packets are passed through the mux to the storage device; column 10, lines 58-65; and see Fig. 1).

As to claim 3, Blatter discloses wherein said packet filter filters, of a plurality of second specific information tables contained in said packet stream transmitted (PSI tables such as PAT; column 8, lines 18-23 and lines 38-43).

As to claim 4, Blatter discloses wherein said second specific information table is a PMT (column 8, lines 49-61).

As to claim 6, Blatter discloses wherein, in said information table generator, a new CAT containing the encrypted state of said digital broadcast signal (CAT table with the broadcast encryption code removed; column 8, lines 35-37 and column 9, lines 43-46) is generated with respect to a CAT in said variety of information tables (received PSI tables; column 8, lines 18-23); and

in said information table substitution unit, said new CAT is substituted for a CAT contained in said packet stream transmitted (wherein the CPSI tables are substituted for the broadcast PSI tables; column 10, lines 58-65).

As to claim 8, Blatter discloses a control section (system controller, 115) that controls the operation of receiving said digital broadcast signal (column 4, lines 30-37);

and an information table extractor (packet buffer, 60) by which, from said packet stream outputted from said receive and demodulation section (column 8, lines 45-47), a specific SI table in said various information tables is extracted to inform its contents to said control section (via a PSI interrupt; column 8, lines 48-56), and wherein,

said packet filter filters said specific SI table contained in said packet stream transmitted (column 8, lines 40-45).

As to claim 9, Blatter discloses a timer (substitution timing signal) for controlling the transmission intervals of said various information tables (column 10, lines 66-67 and column 11, lines 1-6), when said information table substitution unit performs substitution of said various information tables (column 10, lines 66-67 and column 11, lines 1-6).

As to claim 10, Blatter discloses wherein said information table substitution unit performs substitution of said various information tables (column 10, lines 66-67 and column 11, lines 1-6) at the maximum allowable transmission intervals specified for each of said various information tables (wherein every transmitted table is substituted with a new table; column 10, lines 66-67 and column 11, lines 1-9).

As to claim 11, Blatter discloses a digital broadcast receiving system (Fig. 1) comprising:

a **receive and demodulation section** (10, 15, 20 and 30 of Fig. 1) by which a digital broadcast signal received from the exterior is demodulated (column 3, lines 52-61) and outputted as a packet stream (column 3, lines 62-65 and column 4, lines 14-17);

a **packet filter** (PID selection unit, 47) that filters a predetermined packet in a plurality of packets composing said packet stream (column 9, lines 11-14);

a **record and reproduction unit** (storage device, 90 and storage medium, 105) by which said packet stream passing through said packet filter is recorded (column 3, lines 38-44 and column 11, lines 40-43 and 64-67), and said recorded packet stream is reproduced and outputted (column 12, lines 61-65), wherein

said packet filter filters, of said plurality of packets, packets other than a packet for transmitting the data related to a program recorded in said record and reproduction unit (wherein all PSI packets unrelated to any particular program are filtered and stored; column 8, lines 38-45); and

said digital broadcast receiving system further comprising a **recording section** (internal memory in controller, 115) for recording a program information index (full PSI of entire transport stream; column 8, lines 58-61) generated based on information contained in various information tables which are extracted from said packet stream outputted from said receive and demodulation section (wherein the full PSI is a compilation of all received tables; column 8, lines 49-61).

As to claim 12, Blatter discloses an **information table generator** (controller, 115) that generates a new information table (CAT table with the broadcast encryption code removed; column 8, lines 35-37 and column 9, lines 43-46) with respect to a specific information table (received CAT table with encryption code; column 8, lines 35-37) in said various information tables filtered by said packet filter (received PSI tables; column 8, lines 18-23); and

an **information table insertion unit** (mux, 110) for inserting said new information table (CAT table within the new CPSI) to said packet stream transmitted (wherein the CPSI tables are substituted for the broadcast PSI tables; column 10, lines 58-65), disposed between said receive and demodulation section and said record and reproduction unit (wherein received packets are passed through the mux to the storage device; column 10, lines 58-65; and see Fig. 1).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blatter in view of Ohishi et al. (Ohishi) (5,909,257).

As to claim 16, Blatter discloses a digital broadcast receiving system (Fig. 1) comprising:

a **receive and demodulation section** (10, 15, 20 and 30 of Fig. 1) by which a digital broadcast signal received from the exterior is demodulated (column 3, lines 52-61) and outputted as a packet stream (column 3, lines 62-65 and column 4, lines 14-17);

a **packet filter** (PID selection unit, 47) that filters a predetermined packet in a plurality of packets composing said packet stream (column 9, lines 11-14);



a **record and reproduction unit** (storage device, 90 and storage medium, 105) by which said packet stream passing through said packet filter is recorded (column 3, lines 38-44 and column 11, lines 40-43 and 64-67), and said recorded packet stream is reproduced and outputted (column 12, lines 61-65);

an **information table generator** (controller, 115) for generating a predetermined information table (CAT table with the broadcast encryption code removed; column 8, lines 35-37 and column 9, lines 43-46); and

an **output information insertion unit** (mux, 110) by which said predetermined information table (CAT table within the new CPSI) is inserted to said packet stream outputted to said record and reproduction unit, thereby to output it as a new packet stream (wherein packet stream contains the inserted CPSI tables; column 10, lines 58-65); and

a **circuit changing switch** (mux, 37; Fig. 1) that performs a selective switching between said packet stream outputted from said receive and demodulation section, and said new packet stream outputted from said output information insertion unit (wherein the selection is from switch 35 or the storage device; column 4, lines 44-49), thereby performing its transmission to a digital output section (application control unit, 70; column 7, lines 45-57).

While Blatter discloses wherein the generated information table (CAT table within the new CPSI) is inserted into the packet stream output **to** the record and reproduction unit, he fails to specifically disclose wherein the information table is inserted into the packet stream output **from** the record and reproduction unit.

In an analogous art, Ohishi discloses a digital receiver (Fig. 2) wherein when stored programming streams are accessed (column 8, lines 4-8 and lines 34-41), PSI tables in the stream are modified (column 8, lines 20-27). This enables the processor to modify the PSI tables for all the stored programming at once, instead of a separately for each stored program.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Blatter's system to include wherein the information table is inserted into the packet stream output **from** the record and reproduction unit, as taught by Ohishi, for the benefit of reducing the amount of processing needed by only modifying the PSI tables once upon access to the storage device, as opposed to every time a user chooses to store a program.

As to claim 17, while Blatter and Ohishi disclose an information table generator generating a predetermined information table, a record and reproduction unit storing a recorded program and an output information insertion unit, he fails to specifically disclose wherein the program\_number of the recorded program is subjected to an arbitrary alteration, wherein the value obtained by said alteration to said PID value is substituted for the PID value of a packet for transmitting a ES contained in said packet stream transmitted.

Ohishi further discloses a digital receiver (Fig. 16) wherein a new default value is assigned to a newly created PSSI table (column 11, lines 30-34 and Fig. 18) which is substituted for the particular PMT (column 11, lines 30-34 and column 12, lines 15-19)

Art Unit: 2614

representing a program which is recorded (column 11, lines 47-60) for the benefit of enabling a program to be recorded without the need to modify a plurality of tables associated with the program (column 12, lines 15-19).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to further modify Blatter and Ohishi's system to include wherein a specific value is substituted for the PID value of a packet for transmitting an ES described in the PMT, wherein said specific value is substituted for the PID value of a packet for transmitting a ES contained in said packet stream transmitted, as further taught by Ohishi, for the benefit of creating a single default table for a program which eliminates the need to modify and store a plurality of tables for every recorded program.

As to claim 18, while Blatter and Ohishi disclose an information table generator generating a predetermined information table and an output information insertion unit, he fails to specifically disclose wherein the PID value of a packet to be described is subjected to an arbitrary alteration and the value obtained by said alteration to said PID value is substituted for the PID value of a packet for transmitting a ES contained in said packet stream transmitted.

Ohishi further discloses a digital receiver (Fig. 16) wherein default values are substituted for the PID values of video and audio streams (column 11, lines 35-42) to generate a new PSSI table (column 12, lines 5-14 and Fig. 18) with is then recorded (column 12, lines 11-14) for the benefit of enabling a program to be recorded without the

need to modify a plurality of tables associated with the program (column 12, lines 15-19).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to further modify Blatter and Ohishi's system to include wherein a specific value is substituted for the PID value of a packet for transmitting an ES described in the PMT, wherein said specific value is substituted for the PID value of a packet for transmitting a ES contained in said packet stream transmitted, as further taught by Ohishi, for the benefit of creating a single default table which eliminates the need to modify and store a plurality of tables for every recorded program.

6. Claims 2, 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blatter as applied to claims 1, 4 and 12 above, and further in view of Ohishi.

As to claim 2, while Blatter discloses generating a first specific information table, he fails to specifically disclose wherein the specific information table is a PAT table.

In an analogous art, Ohishi discloses a digital receiver (Fig. 2) wherein when stored programming streams are accessed (column 8, lines 4-8 and lines 34-41) the PAT table is modified (column 8, lines 20-27) for the benefit ensuring that the PAT table only refers to programs which were recorded and are available for playback (Fig. 11a-e; column 7, lines 48-67 and column 8, lines 1-3 and lines 20-27).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Blatter's system to include wherein the specific information table is a PAT table, as taught by Ohishi, for the benefit ensuring that the

PAT table stored with the program only refers to programs which were selected for recording and are available for playback.

As to claim 5, while Blatter discloses an information table generator generating a PMT (column 8, lines 49-61) and an information table substitution unit, he fails to specifically disclose wherein a specific value is substituted for the PID value of a packet for transmitting an ES described in the PMT, wherein said specific value is substituted for the PID value of a packet for transmitting a ES contained in said packet stream transmitted, and a recording section for retaining said specific value.

In an analogous art, Ohishi discloses a digital receiver (Fig. 16) wherein specific default values are substituted for the PID values of video and audio streams (column 11, lines 35-42) to generate a new PSSI table (column 12, lines 5-14 and Fig. 18) which is recorded with the selected program (column 12, lines 11-14) for the benefit of eliminating the need to modify a plurality of tables by creating a single default table (column 12, lines 15-19).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Blatter's system to include wherein a specific value is substituted for the PID value of a packet for transmitting an ES described in the PMT, wherein said specific value is substituted for the PID value of a packet for transmitting a ES contained in said packet stream transmitted, and a recording section for retaining said specific value, as taught by Ohishi, for the benefit of creating a single default table

Art Unit: 2614

which eliminates the need to modify and store a plurality of tables for every recorded program.

As to claim 13, while Blatter discloses a program information index and an information table insertion unit, he fails to specifically disclose wherein a specific value is substituted for the PID value of a packet for transmitting an ES described in a PMT, wherein said specific value is substituted for the PID value of a packet for transmitting a ES contained in said packet stream transmitted.

In an analogous art, Ohishi discloses a digital receiver (Fig. 16) wherein specific default values are substituted for the PID values of video and audio streams (column 11, lines 35-42) to generate a new PSSI table (column 12, lines 5-14 and Fig. 18) with is then recorded (column 12, lines 11-14) for the benefit of eliminating the need to modify a plurality of tables by creating a single default table (column 12, lines 15-19).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Blatter's system to include wherein a specific value is substituted for the PID value of a packet for transmitting an ES described in the PMT, wherein said specific value is substituted for the PID value of a packet for transmitting a ES contained in said packet stream transmitted, as taught by Ohishi, for the benefit of creating a single default table which eliminates the need to modify and store a plurality of tables for every recorded program.

Art Unit: 2614

7. Claims 7, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blatter as applied to claim 1 and 11 above, and further in view of Freimann (6,604,243).

As to claim 7, while Blatter discloses an information extractor (packet buffer, 60) that extracts various tables contained in said packet stream transmitted (received PSI tables; column 8, lines 45-61); and

a recording section (internal memory in controller 115) that records information contained in the tables extracted by said information table extractor (column 8, lines 52-61); and wherein

said packet filter filters the tables contained in said packet stream (column 8, lines 40-45) which are extracted by said information table extractor (column 8, lines 45-47), he fails to specifically disclose wherein the information tables are a SDT table and an EIT table.

In an analogous art, Freimann discloses a set top box (110, Fig. 2) which will receive a plurality of service tables (column 4, lines 50-58 and column 5, lines 1-8) including SDT and EIT tables (column 4, lines 50-58 and column 5, lines 1-8) and format them (column 4, lines 50-58) for the typical benefit of utilizing service tables conforming to the Digital Video Broadcasting (DVB) standard (column 4, lines 50-58).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Blatter's system to include wherein the information tables are a SDT table and an EIT table, as taught by Freimann, for the typical benefit of

Art Unit: 2614

operating a system which utilizes provided service tables which conform to the Digital Video Broadcasting (DVB) standard.

As to claim 14, while Blatter discloses a program information index (PSI of transport stream contained in memory; column 8, lines 58-61), he fails to specifically disclose wherein the index includes a SDT table and an EIT table.

In an analogous art, Freimann discloses a set top box (110, Fig. 2) which will receive a plurality of service tables (column 4, lines 50-58 and column 5, lines 1-8) including SDT and EIT tables (column 4, lines 50-58 and column 5, lines 1-8) and format them (column 4, lines 50-58) for the typical benefit of utilizing service tables conforming to the Digital Video Broadcasting (DVB) standard (column 4, lines 50-58).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Blatter's system to include wherein the index includes a SDT table and an EIT table, as taught by Freimann, for the typical benefit of operating a system which utilizes provided service tables which conform to the Digital Video Broadcasting (DVB) standard.

As to claim 15, Blatter and Freimann disclose wherein said program information index further contains information described in a BAT (see Freimann at column 4, lines 50-58 and column 5, lines 1-8).



Art Unit: 2614

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blatter and Ohishi as applied to claim 16 above, and further in view of Freimann.

As to claim 19, while Blatter and Ohishi disclose wherein when said new packet stream is transmitted from said output information insertion unit (wherein packet stream contains the inserted CPSI tables; see Blatter at column 10, lines 58-65) via said circuit changing switch (mux, 37; see Blatter at Fig. 1) to said digital output section (application control unit, 70; see Blatter at column 7, lines 45-57), information tables are multiplexed with said new packet stream (wherein the mux enters the new CPSI tables; see Blatter at column 10, lines 58-65) and then outputted, they fail to specifically disclose wherein the tables are SDT and EIT tables.

In an analogous art, Freimann discloses a set top box (110, Fig. 2) which will receive a plurality of service tables (column 4, lines 50-58 and column 5, lines 1-8) including SDT and EIT tables (column 4, lines 50-58 and column 5, lines 1-8) and format them (column 4, lines 50-58) for the typical benefit of utilizing service tables conforming to the Digital Video Broadcasting (DVB) standard (column 4, lines 50-58).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Blatter's system to include wherein the tables are SDT and EIT tables, as taught by Freimann, for the typical benefit of operating a system which utilizes provided service tables which conform to the Digital Video Broadcasting (DVB) standard.

### ***Conclusion***

Art Unit: 2614

9. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

### **Certificate of Mailing**

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (703) 305-8722. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the primary examiner, Chris Grant can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Sheleheda  
Patent Examiner  
Art Unit 2614

JS

  
JOHN MILLER  
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